

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|--|-----------------|------------------|---------|------------------|
| L1 | 34 | 501/57,58,65.ccls. and (SiO2 or "SiO.sub.2" or SiO2 or "SiO.sub.2" or silica or silicon or quartz) and (B2O3 or "B.sub.2 O.sub.3" or B2O3 or "B.sub.2 O.sub.3" or boron or borio or boro or boron) and (K2O or "K.sub.2 O" or K2O or "K.sub.2 O" or potash or potassium) and (ZrO2 or "ZrO.sub.2" or ZrO2 or "ZrO.sub.2" or zirconium or zirconia) and (Li2O or "Li.sub.2 O" or Li2O or "Li.sub.2 O" or Lithia or lithium) and (Na2O or "Na.sub.2 O" or Na2O or "Na.sub.2 O" or sodo or soda or sodium) and (MgO or Mg0 or Magnesium) and (CaO or Ca0 or calcium or calico or calcia or lime) and (BaO or Ba0 or barium or baria) and (ZnO or Zn0 or zinc) and (TiO2 or "TiO.sub.2" or TiO2 or "TiO.sub.2" or titania or titanium) and (CeO2 or "CeO.sub.2" or CeO2 or "CeO.sub.2" or Ce2O3 or "Ce.sub.2 O.sub.3" or "Ce.sub.2O.sub.3" or Ce2O3 or "Ce.sub.2O.sub.3" or "Ce.sub.2 O.sub.3" or cerium or ceria) and (Fluorine or F- or "F.sup.-" or fluoride) | US-PGPUB; USPAT | OR | ON | 2005/11/25 16:39 |
| L2 | 171 | 501/57,58,65.ccls. and (SiO2 or "SiO.sub.2" or SiO2 or "SiO.sub.2" or silica or silicon or quartz) and (B2O3 or "B.sub.2 O.sub.3" or B2O3 or "B.sub.2 O.sub.3" or boron or borio or boro or boron) and (K2O or "K.sub.2 O" or K2O or "K.sub.2 O" or potash or potassium) and (ZrO2 or "ZrO.sub.2" or ZrO2 or "ZrO.sub.2" or zirconium or zirconia) and (Li2O or "Li.sub.2 O" or Li2O or "Li.sub.2 O" or Lithia or lithium) and (Na2O or "Na.sub.2 O" or Na2O or "Na.sub.2 O" or sodo or soda or sodium) | US-PGPUB; USPAT | OR | ON | 2005/11/25 21:09 |
| L3 | 202 | 501/57,58,65.ccls. and (SiO2 or "SiO.sub.2" or SiO2 or "SiO.sub.2" or silica or silicon or quartz) and (B2O3 or "B.sub.2 O.sub.3" or B2O3 or "B.sub.2 O.sub.3" or boron or borio or boro or boron) and (K2O or "K.sub.2 O" or K2O or "K.sub.2 O" or potash or potassium) and (ZrO2 or "ZrO.sub.2" or ZrO2 or "ZrO.sub.2" or zirconium or zirconia) | US-PGPUB; USPAT | OR | ON | 2005/11/25 21:09 |

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|-----|------|--|---|----|----|------------------|
| L5 | 1115 | (borosilicate adj glass) and (SiO2 or "SiO.sub.2" or SiO2 or "SiO.sub.2" or silica or silicon or quartz) and (B2O3 or "B.sub.2 O.sub.3" or B2O3 or "B.sub.2 O.sub.3" or boron or borio or boro or boron) and (K2O or "K.sub.2 O" or K2O or "K.sub.2 O" or potash or potassium) and (ZrO2 or "ZrO.sub.2" or ZrO2 or "ZrO.sub.2" or zirconium or zirconia) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2005/11/25 16:39 |
| L6 | 82 | (borosilicate adj glass) and (SiO2 or "SiO.sub.2" or SiO2 or "SiO.sub.2" or silica or silicon or quartz) and (B2O3 or "B.sub.2 O.sub.3" or B2O3 or "B.sub.2 O.sub.3" or boron or borio or boro or boron) and (K2O or "K.sub.2 O" or K2O or "K.sub.2 O" or potash or potassium) and (ZrO2 or "ZrO.sub.2" or ZrO2 or "ZrO.sub.2" or zirconium or zirconia) | EPO; JPO; DERWENT | OR | ON | 2005/11/25 16:39 |
| L7 | 48 | 501/57,58,65.ccls. and (SiO2 or "SiO.sub.2" or SiO2 or "SiO.sub.2" or silica or silicon or quartz) and (B2O3 or "B.sub.2 O.sub.3" or B2O3 or "B.sub.2 O.sub.3" or boron or borio or boro or boron) and (K2O or "K.sub.2 O" or K2O or "K.sub.2 O" or potash or potassium) and (ZrO2 or "ZrO.sub.2" or ZrO2 or "ZrO.sub.2" or zirconium or zirconia) | USOCR | OR | ON | 2005/11/25 16:40 |
| L8 | 137 | I2 not I1 | US-PGPUB; USPAT | OR | ON | 2005/11/25 23:46 |
| L9 | 168 | I3 not I1 | US-PGPUB; USPAT | OR | ON | 2005/11/25 23:30 |
| L10 | 0 | I2 not I3 | US-PGPUB; USPAT | OR | ON | 2005/11/25 23:30 |
| L11 | 1 | "5017521".pn. | US-PGPUB; USPAT | OR | ON | 2005/11/25 23:47 |
| L12 | 1 | "3499776".pn. | US-PGPUB; USPAT | OR | ON | 2005/11/25 23:48 |

| | 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------------|---------------|---------|----------|-----------|---|-----------------------|
| | | | | 1 | 1 | 1 |
| Mol % | Optical Glass | | | | | |
| comprising | X | X | X | | | |
| B2O3 | X | X | 15-40 | | | B2O3 |
| SiO2 | X | X | 38436 | | | SiO2 |
| La2O3 | X | X | 5-20 | contains | | La2O3 |
| Gd2O3 | X | X | 5-20 | contains | | Gd2O3 |
| ZnO | X | X | 2-35 | | | ZnO |
| Li2O | X | X | 0.5-15 | | | Li2O |
| ZrO2 | X | X | 0.5-15 | | | ZrO2 |
| Ta2O5 | X | X | 0.2-10 | | | Ta2O5 |
| WO3 | | | 0-15 | | | WO3 |
| Y2O3 | | | 0-8 | contains | | Y2O3 |
| Yb2O3 | | | 0-8 | contains | | Yb2O3 |
| Sb2O3 | 0-1 | 0-1 | 0-1 | | | Sb2O3 |
| PbO | S. None | S. None | S. None | | | PbO |
| Lu2O3 | S. None | S. None | S. None | | | Lu2O3 |
| Nb2O5 | | | optional | | | Nb2O5 |
| BaO | | | optional | | | BaO |
| GeO2 | | | optional | | | GeO2 |
| Sc2O3 | | | | contains | | Sc2O3 |
| La+Gd+Yb+Y+Sc | | | | 12-32 | | La+Gd+Yb+Y+Sc |
| La/La+Gd+Yb+Y+Sc | | | | 0.35-0.66 | | La/La+Gd+Yb+Y+Sc |
| Total listed above | | | >95% | | | Total listed above |
| Tg | <=630°C | <=630°C | <=630°C | | | Tg |
| Nd | >1.8-1.9 | >1.85 | >1.8-1.9 | | | Nd |
| Vd | >35-50 | >35 | >35-50 | | | Vd |
| nd>=2.025-(0.005x vd) | X | | X | | | nd>=2.025-(0.005x vd) |
| Preform | | | | | X | Preform |
| Optical element | | | | | | Optical element |